Fujitsu recommends Windows 8 Pro.

Data Sheet
Fujitsu CELSIUS W520 Workstation

Performance That Boosts Your Productivity

If you need a powerful entry-level workstation, Fujitsu's CELSIUS W520 is the ideal choice. Comprehensive ISV certifications ensure your professional applications run smoothly. Your workplace is silent and user-friendly thanks to best-in-class noise emissions. Plus, the cold plug access at the front of the workstation lets you expand your storage capacity or change drives for enhanced working flexibility.

Powerful workstation
Get more done in less time
- The fastest available processors, graphics cards and hard disk drives for entry-level 3D/CAD or DCC applications

Quality
Highest quality and reliability for continouos productivity
- Designed and manufactured in Germany

Upgradeability
Minimum downtime in the event of rapid component upgrades
- Screw less access system design

Leading workstation application certification
Maximum compatibility and performance with customer-preferred applications
- Full support for ISV applications and easy integration into existing IT environments

Easy and rapid change of hard disk drives
Quick upgrades and changes of hard disk drives
- Cold plug access at front

Fujitsu recommends Windows 8 Pro.

Components

Processor	Intel® Core™ i3-3220 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2500)
	Intel® Xeon® processor E3-1280v2 (4 Cores / 8 Threads, 3.60 GHz, up to 4.0 GHz, 8 MB)
	Intel® Xeon® processor E3-1275v2 (4 Cores / 8 Threads, 3.50 GHz, up to 3.9 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® Xeon® processor E3-1270v2 (4 Cores / 8 Threads, 3.50 GHz, up to 3.9 GHz, 8 MB)
	Intel® Xeon® processor E3-1245v2 (4 Cores / 8 Threads, 3.40 GHz, up to 3.8 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® Xeon® processor E3-1240v2 (4 Cores / 8 Threads, 3.40 GHz, up to 3.8 GHz, 8 MB)
	Intel® Xeon® processor E3-1230v2 (4 Cores / 8 Threads, 3.30 GHz, up to 3.7 GHz, 8 MB)
	Intel® Xeon® processor E3-1225v2 (4 Cores / 4 Threads, 3.20 GHz, up to 3.6 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® Xeon® processor E3-1220v2 (4 Cores / 4 Threads, 3.10 GHz, up to 3.5 GHz, 8 MB)
	Intel® vPro™ with all Intel® Xeon® processors
Operating systems	
Operating system	Windows® 7 Professional 64-bit Windows® 7 Professional 32-bit Windows® 7 Home Premium 64-bit Windows 8 Pro Windows 8
Operating system compatible	Windows® XP Linux
Operating system notes	Certified for Red Hat® Enterprise Linux Certified for SUSE Enterprise Desktop Certified for SUSE Enterprise Server For some configurations third party drivers are currently not available or configuration restrictions may apply. Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via http://support.ts.fujitsu.com
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
Graphics	Remote Graphics: CELSIUS RemoteAccess Dual Card, PCIe x1, 2x DVI-I, PCoIP
	Remote Graphics: CELSIUS RemoteAccess Quad Card, PCIe x1, 2x DVI-I, PCoIP
	Ultra-high-end 3D: NVIDIA® Quadro® K5000, 4 GB, 1536 cores, PCIe x16, 1x Dual Link DVI-I, DVI-D, 2x DisplayPort
	High-end 3D: AMD FirePro™ W7000, 4 GB, 1280 stream processors, PCIe x16, 4 x DisplayPort
	High-end 3D: NVIDIA® Quadro® K4000, 3 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	High-end 3D: NVIDIA® Quadro® 4000, 2 GB, 256 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: NVIDIA® Quadro® K2000D, 2 GB, 384 cores, PCIe x16, 2x Dual Link DVI-I
	Midrange 3D: NVIDIA® Quadro® 2000D, 1 GB, 192 cores, PCIe x16, 2x Dual Link DVI-I
	Midrange 3D: NVIDIA® Quadro® K2000, 2 GB, 384 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, 192 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ W5000, 2 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Entry 3D: AMD FirePro™ V4900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Entry 3D: NVIDIA® Quadro® K600, 2 GB, 192 cores, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort
	Entry 3D: NVIDIA® Quadro® 600, 1 GB, 96 cores, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort
	Entry 3D: AMD FirePro™ V3900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort
	Entry 3D: NVIDIA® Quadro® 410, 512 MB, 192 cores, PCIe x16, 1x DVI-I, 1x DisplayPort
	Professional 2D: NVIDIA® Quadro® NVS 310, 512 MB, 16 cores, PCIe Gen2 x16, 2x DisplayPort
	Professional 2D: NVIDIA® Quadro® NVS 510, 2 GB, 16 cores, PCIe Gen2 x16, 4x miniDP
	Professional 2D: NVIDIA® Quadro® NVS 450, 512 MB, 2 x 8 cores, PCIe x16, 4 x DisplayPort
	Professional 2D: NVIDIA® Quadro® NVS 300, 512 MB, 16 cores, PCIe Gen2 x16, 2x LFH59 (DP/DVI-I)

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Notes	NVIDIA® Quadro® K5000, NVIDIA® Quadro® K4000, NVIDIA® Quadro® 4000 and ATI FirePro™ V7900 require CELSIUS W520power	
Hard disk drives (internal)	SSD SATA III Premium, 256 GB, 2.5-inch	
	SSD SATA III Premium, 128 GB, 2.5-inch	
	SSD SATA III, 512 GB, 2.5-inch	
	SSD SATA III, 256 GB, 2.5-inch	
	SSD SATA III, 128 GB, 2.5-inch, SED	
	SSD SATA III, 128 GB, 2.5-inch	
	SSD SATA III, 64 GB, 2.5-inch	
	SSD SATA, 256 GB, 2.5-inch	
	SSD SATA, 128 GB, 2.5-inch	
	HDD SATA III, 10000 rpm, 1000 GB, 2.5-inch, business critical	
	HDD SATA III, 10000 rpm, 600 GB, 3.5-inch	
	HDD SATA III, 10000 rpm, 600 GB, 2.5-inch	
	HDD SATA III, 10000 rpm, 500 GB, 2.5-inch, business critical	
	HDD SATA III, 7200 rpm, 4000 GB, 3.5-inch, business critical	
	HDD SATA III, 7200 rpm, 3000 GB, 3.5-inch, business critical	
	HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch	
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch, business critical	
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch	
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical	
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch	
	HDD SATA III, 7200 rpm, 250 GB, 3.5-inch	
	HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical	
	HDD SATA II, 7200 rpm, 320 GB, 2.5-inch	
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. 24/7 ready (business critical HDDs required) Up to 20 GB of HDD space is reserved for system recovery	
Drives (optional)	BD Triple Writer SATA slim (tray)	
	DVD-ROM	
	DVD Super Multi	
	MultiCard Reader 24in1 USB 2.0 3.5"	
Interface add on cards/components (optional)		
	WLAN III, 802.11g/Draft-n (Windows only, dedicated regions only)	
	Parallel Interface	
	Gigabit Ethernet PCIe x1, DS	
	eSATA Interface	
	Dual serial card PCIe x1, powered	
	Dual serial card PCIe x1	
Base unit	CELSIUS W520	CELSIUS W520power
Mainboard		
Mainboard type	D3167	
Formfactor	ATX	
Chipset	Intel® C216	
Processor socket	LGA 1155	
Processor quantity maximum	1	
Memory slots	4 DIMM (DDR3) ECC/non-ECC	
Supported capacity RAM (max.)	32 GB	
Memory frequency	1600 MHz	

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Mainboard	
Memory notes	Dual channel support. For dual channel performance, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	10/100/1000 MBit/s Intel® 82579 LM
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
Audio codec	Conexant CX20642
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound
I/O controller on board	
Serial ATA total	6
thereof SATA III	2
thereof eSATA	2 (optional)
Controller functions	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI RAID 0/1/5/10 (Windows XP not supported) Intel® Smart Response Technology (depending on CPU)
SATA RAID support	0, 1, 10, 5
Interfaces	
Audio: in (rear)	2
Audio: out (rear)	1
Audio: in	1
Audio: out	1
Internal speakers	1
USB 2.0 total	10
USB 3.0 total	4
USB front	2x 2.0/ 2x 3.0
USB rear	6x 2.0 / 2x 3.0
USB internal	2
VGA	1 (depends on processor, via DVI to VGA adapter)
DisplayPort	1
DVI	1 (depends on processor)
Serial (RS-232)	1 (9pin, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	1, optional (25pin with EPP and ECP)
eSATA	1 (optional)
Interface Module notes	Anytime USB charge functionality
Drive bays	
Drive bays total	8
3.5-inch internal bays	4
3.5-inch external bays	2
5.25-inch external bays	2
Drive bay notes	Up to 4x 2.5-inch HDDs (cold plug) or Up to 4x 3.5-inch HDDs (cold plug) or Up to 2x 2.5-inch and 2x 3.5-inch HDDs (cold plug)
Slots	
PCI-Express 3.0 x16	1 x (312 mm /) Full height
PCI-Express 2.0 x4 (mech. x16)	1 x (210 mm /) Full height
PCI-Express x1	3 x (312mm (2x) / 170 mm (1x) mm /) Full height

Slots	
PCI (32-bit / 33 MHz)	2 x (312 mm /) Full height
Graphics on board	
Shared video memory	up to 1759 MB
TFT resolution (VGA)	1024 x 768 pixel 1280 x 1024 pixel 1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1600 x 1200 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DisplayPort)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel
Graphics features	Dual display support DirectX® 10.1 or DirectX® 11 (depending on CPU) HDCP support Open GL® 3.1 (depending on CPU) Open CL™ 1.1 (depending on CPU) For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows 7® only)
Graphics notes	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size and operating system Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz
Electrical values	
Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 87% / 90% / 87%
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Operating voltage range	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz
Max. output of single power supply	300 W (CELSIUS W520); 500 W (CELSIUS W520power)
Power factor correction/active power	active

Noise for standard configuration (HDD, ODD)		
Noise Operation mode 4: High load	18 dB(A)	18 dB(A)
Noise Operation mode 5: Office applications	18 dB(A)	18 dB(A)

Dimensions / Weight / Environmental	
Dimensions (W x D x H)	186 x 481 x 430 mm
Operating position	Vertical / horizontal
Weight	approx. 16 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35 °C

Dimensions / Weight / Environmental	
Operating relative humidity	5 - 85 % (relative humidity)
Compliance	
Product	CELSIUS W520power
Model	MTB-D3167
Germany	TÜV GS
Europe	CE Nordic Swan
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 EPEAT® Silver (dedicated regions)
Compliance notes	Energy Star compliance may vary depending on actual configuration
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates
Security	
System protection	Kensington Lock support Eye for padlock Seal option Intrusion switch Integrated cabinet lock (optional)
Audit proof protection	EraseDisk Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces
Access protection	User and supervisor BIOS password Hard disk password Access protection via external SmartCard reader (optional) Access protection via internal SmartCard reader (optional) SmartCase Logon+ (optional)
Additional Software	
Additional software (preinstalled)	Nero Essentials S (burning software) Fujitsu Recovery (Hard Disk Based Recovery) Norton Internet Security (incl. Firewall) 60 days version Don't forget Office.
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) Nero 10 Essentials XL
Miscellaneous	
	Keyboard on (Special Fujitsu keyboard required) Thermal management Extended lifetime Rack mountable (5U)
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Manageability	
Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) iAMT 8.0 (depending on CPU)
Manageability software	DeskView 10.x client management including:

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Manageability	
DeskView components	On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)

Input device / components	
	Optical USB tilt wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse KBPC PX ECO Mouse M440 ECO Space Explorer USB Keyboard

Warranty	
Standard Warranty	3 years (depending on country)
Service level	Bring-In / Onsite Service (for countries within region FTS CEMEA&I, for all other countries depending on local regulations, minimum: 3 years material warranty)
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty
Maintenance and Support Services - the perfect extension	
Recommended Service	9x5, Response Time: Next Business Day
Spare Parts availability	5 years after end of product life
Service Weblink	http://www.fujitsu.com/fts/services/support

Recommended Accessories

Kensington Combination Ultra

The Fujitsu Kensington Combination Ultra Laptop Lock protects your device from theft. The push button design offers one hand operation for ease of use and the four-wheel combination lock makes it nearly impossible to crack. Simply anchor it to any fixed structure to get Ultra security.

Order Code:
S26361-F1650-L510

Display P23T-6P FPR 3D

If you're a pixel, color and performance-hungry professional using demanding 2D and 3D applications, Fujitsu Display P23T-6 FPR 3D is the perfect choice for you. The combination of the stunning IPS graphic panel with latest 3D FPR technology, unique energy efficiency features and sophisticated ergonomics make this display really unrivalled.

Order Code:
S26361-K1433-V170

Mouse M440 ECO

Fujitsu Mouse M440 ECO is made from 100% bio material and has a completely PVC free cable. The elegant M440 ECO works on nearly every surface and follows all your hand movements smoothly and precisely. It features two main buttons and as well as a scroll wheel providing comfortable computing to both right and left-handed users.

Order Code:
S26381-K450-L200

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SpaceMouse™ Pro		Using the SpaceMouse™ Pro 3D mouse to navigate 3D models or environments is as simple as holding them in your hand. A slight movement of the controller cap delivers easy and precise control. SpaceMouse™ Pro is a companion to the traditional mouse and is operated with the free hand. Your traditional mouse hand is free to select, create and edit.	Order Code: S26381-K459-L100
Keyboard KBPC PX ECO		Fujitsu's KBPC PX ECO keyboard is the perfect contribution to Green IT. The keyboard is made out of 45% renewable raw material and comes with a PVC free USB cable. In addition, the KBPC PX ECO offers first class comfort and ergonomics. It attracts attention with its impressive modern design and useful extras.	S26381-K341-L1** (**: country specific variation)

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More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu CELSIUS W520, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu CELSIUS W520, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts/CELSIUS

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

Green Policy Innovation

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Contact
FUJITSU Technology Solutions
Website: www.fujitsu.com/fts
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